

ABSTRACT

A combined IEEE 1394-2000 and ethernet network allows devices on the network to operate according to both the IEEE 1394-2000 protocol and the ethernet protocol. The devices within the network are able to send IEEE 1394-2000 isochronous data, IEEE 1394-2000 asynchronous data and ethernet data. Both IEEE 1394-2000 and ethernet devices within the network are coupled to modified hubs (MHubs) to form a local cluster. The MHubs are coupled to an ethernet switch which controls communications between devices in different local clusters. The ethernet switch and the MHubs obey an isochronous interval in which all isochronous data transfers will be allowed. Preferably, on a regular and reoccurring period, the ethernet switch sends an isotick signal to begin the isochronous interval. Any bandwidth left after the isochronous interval is then allocated to the traditional ethernet traffic and the IEEE 1394-2000 asynchronous traffic, until the start of the next isochronous interval.